

IN THE SPECIFICATION

Please amend the second paragraph of page 8 as follows:

In addition to signal processing, DSP 27 also functions as a data pump. Microcontroller 22 provides attention commands (AT commands) decoding and call progress monitoring and may employ, for example, a 4-bit program word and an 8-bit data word. Clock interface 28 includes a clock generator that accepts a high-frequency (e.g., 4.9152 MHz) master clock input. Clock interface 28 also generates all the modem sample rates for supporting the modem standards designed into system-side line-isolation module 21. In addition, the clock generator within clock interface 28 provides a 9.6 kHz rate for audio playback.

Please amend the equation in the second paragraph of page 9 as follows:

If modem 17 from Figure 1 is to be utilized as a receiving modem, then an adaptive equalizer needs to be provided within modem 17. Such adaptive equalizer is preferably implemented in software or firmware to be executed by DSP 27 within modem 17. In addition, a training procedure needs to be performed on the adaptive equalizer before modem 17 should receive data from a sending modem, such as modem 12 from Figure 1. Basically, the training procedure generates approximately 40 to 60 coefficients for the adaptive equalizer in order to ensure that modem 17 can compensate for the impairments on a telephone line between modem 17 and modem 12 during data transmissions. The coefficients for the adaptive equalizer can be generated by the following equation:

$$w_n(k+1) = w_n(k) + \frac{0.1}{\delta(r_k)} * e(k) * r(k-n)$$

where r_k = input sample

$\delta(r_k)$ = input power of input sample

w_n = equalizer coefficients

$e(k)$ = error between ideal symbol and equalizer output

n = index of equalizer coefficients

k = time index